

IN THE CLAIMS

For the convenience of the Examiner, all pending claims of the present Application are shown below in numerical order whether or not an amendment has been made.

1. (Currently Amended) A roadway crash cushion comprising:  
a collapsible, substantially self-restoring collapsing portion comprising a pair of substantially ~~parallel~~ planar panels formed substantially of a thermoplastic material, the panels each being cambered by ~~bending a bend in the panel, the panels being spaced apart~~ such that a collapsible cell is formed between the panels.
2. (Canceled)
3. (Previously Presented) The roadway crash cushion of claim 1 wherein the thermoplastic material comprises polyethylene.
4. (Previously Presented) The roadway crash cushion of claim 1 further comprising at least one substantially rectangular supporting frame that is secured to each of the panels.
5. (Currently Amended) The roadway crash cushion of claim 4 further comprising a longitudinal, ground-mounted rail member and wherein the supporting frame engages the rail member for ~~longitudinal~~ slidable movement along the rail member.
6. (Canceled)
7. (Previously Presented) The roadway crash cushion of claim 1 further comprising a nose piece.

8. (Currently Amended) A roadway crash cushion comprising:  
a collapsible cushion portion ~~having a cambered~~ comprising:  
a first panel member being cambered by at least one bend in the panel, the first panel configured to collapsibly fold that collapsibly folds during a collision and, due to shape memory, will substantially return to an unfolded condition following a collision; and  
a second panel member being cambered by at least one bend in the panel, the first panel configured to collapsibly fold during a collision and, due to shape memory, substantially return to an unfolded condition following a collision, the second panel spaced apart from the first panel such that a collapsible cell is formed between the first and second panels.
9. (Currently Amended) The roadway crash cushion of claim 8 wherein further comprising:  
a ground-mounted longitudinal basetrack;  
a plurality of substantially rigid diaphragms that are affixed to the ~~panel member, the diaphragms~~ first and second panel members such that the diaphragms each engaging engage the basetrack for slidable movement thereupon.
10. (Previously Presented) The roadway crash cushion of claim 9 wherein the basetrack comprises a pair of parallel rail members.
11. (Previously Presented) The roadway crash cushion of claim 10 wherein each diaphragm comprises an enlarged upper portion to which the panel members are secured.
12. (Currently Amended) The roadway crash cushion of claim 10 wherein each diaphragm comprises a lower portion having a pair of shoes for ~~slidingly~~ slidably engaging the rail members.
13. (Canceled)
14. (Previously Presented) The roadway crash cushion of claim 9 further comprising a nose piece formed of a sheet of plastic bent substantially into a "U" shape.

15. (Currently Amended) A roadway crash cushion comprising:

a longitudinal, ground-mounted basetrack that comprises a pair of parallel rail members;

a pair of substantially planar panel members that are positioned parallel to one another ~~an~~ in a substantially vertical orientation, the panels being spaced apart such that at least one collapsible cell may be formed between the pair of panels, the panel members each having a cambered portion wherein the panel member is bent from its planar form to promote ~~promote~~ ~~that~~ elastic deformation of the panel member along the cambered portion;

a plurality of diaphragms for securing the panel members to each other and to the base track, the diaphragms each comprising a pair of shoes for sliding engagement of the diaphragm to the basetrack rail members; and

a tension cable affixed to at least one diaphragm.

16. (Currently Amended) The roadway crash cushion of claim 15 ~~further~~ wherein the panel members and diaphragms are secured to one another to form a linear array of closed ~~crushable~~ collapsible cells.

17. (Previously Presented) The roadway crash cushion of claim 16 wherein the cells are hexagonally shaped.

18. (Previously Presented) The roadway crash cushion of claim 16 wherein the cells have different sizes to provide for separate collapsible zones within the array of cells.

19. (Previously Presented) The roadway crash cushion of claim 18 wherein the array of cells has a pair of primary collapsible zones located at upstream and downstream ends of the array.

20. (Previously Presented) The roadway crash cushion of claim 19 wherein the array of cells has a secondary collapsible zone located between the primary collapsible zones.

21. (New) A roadway crash cushion comprising:

a first cambered, substantially planar panel having a first plurality of bends, the first cambered panel formed of a substantially self-restoring thermoplastic material comprising polyethylene;

a second cambered, substantially planar panel having a second plurality of bends, each of the second plurality of bends corresponding to one of the first plurality of bends, the second cambered panel formed of a substantially self-restoring thermoplastic material comprising polyethylene;

a plurality of diaphragms coupling the first cambered panel and the second cambered panel, the first and second panels being spaced apart such that an array of collapsible cells are formed between the first and second panels, the diaphragms cooperating with the first and second panels to form the array of collapsible cells between the first and second panels, each of the array of collapsible cells having a hexagonal shape, the array of collapsible cells comprising:

a first plurality of cells, each of the first plurality of cells of a first size; and

a second plurality of cells, each of the second plurality of cells of a second size, the second plurality of cells of the second size being smaller than the first plurality of cells of the first size, the second plurality of cells downstream from the first plurality of cells; and

at least two longitudinal, ground-mounted rail members each engaged with the plurality of diaphragms to allow for slidable movement of the diaphragms along the rail member as the collapsible cells collapse;

wherein the thermoplastic material of the first and second panels substantially returns the first and second panels to their initial form after the collapsible cells collapse.

22. (New) A roadway crash cushion comprising:  
a first cambered panel having a first plurality of bends;  
a second cambered panel having a second plurality of bends, each of the second plurality of bends corresponding to one of the first plurality of bends; and  
a plurality of diaphragms coupling the first cambered panel and the second cambered panel, the diaphragms cooperating with the first and second cambered panels to form an array of collapsible cells between the first and second cambered panels.
23. (New) The roadway crash cushion of claim 22 wherein the collapsible cells collapse longitudinally when a longitudinal force is applied to the roadway crash cushion.
24. (New) The roadway crash cushion of claim 23 wherein the first and second cambered panels comprise a thermoplastic material operable to substantially return the first and second cambered panels to their initial form after the collapsible cells collapse.
25. (New) The roadway crash cushion of claim 24 wherein the thermoplastic material comprises polyethylene.
26. (New) The roadway crash cushion of claim 23 wherein each diaphragm engages at least one longitudinal, ground-mounted rail member to allow slidable movement of the diaphragms along the rail member as the collapsible cells collapse.
27. (New) The roadway crash cushion of claim 23 wherein each diaphragm engages at least two longitudinal, ground-mounted rail members to allow slidable movement of the diaphragms along the rail member as the collapsible cells collapse.
28. (New) The roadway crash cushion of claim 27 wherein each diaphragm comprises a pair of shoes for slidably engaging the rail members.
29. (New) The roadway crash cushion of claim 22 wherein each of the first plurality of bends is located at a point on the first cambered panel that corresponds with a similar location on the second cambered panel.

30. (New) The roadway crash cushion of claim 22 wherein each of the first plurality of bends are located at a point on the first cambered panel that corresponds with a midway point within an associated collapsible cell.

31. (New) The roadway crash cushion of claim 22 further comprising a tension cable coupling at least two diaphragms, the tension cable operable to redirect a force applied perpendicularly to the first cambered panel.

32. (New) The roadway crash cushion of claim 22 further comprising a nose piece configured to receive a longitudinal force, a first end of the nose piece coupled to the first cambered panel, a second end of the nose piece coupled to the second cambered panel.

33. (New) The roadway crash cushion of claim 22 wherein the array of collapsible cells comprise:

- a first grouping of collapsible cells comprising a first primary collapsible zone disposed at an upstream end of the array;

- a second grouping of collapsible cells comprising a second primary collapsible zone disposed at a downstream end of the array, the cells in the first grouping approximately the same size as the cells in the second grouping; and

- a third grouping of collapsible cells comprising a secondary collapsible zone disposed between the first and second primary collapsible zones;

- wherein the cells in the first, second, and third groupings are sized such that the cells in the first and second groupings collapse before the cells in the third grouping.

34. (New) The roadway crash cushion of claim 33 wherein the cells of the first grouping are approximately the same size as the cells in the second grouping.

35. (New) The roadway crash cushion of claim 33 wherein the cells of the third grouping are larger than the cells in the first and second groupings.

36. (New) The roadway crash cushion of claim 22 wherein the array of collapsible cells comprise:

a first cell of a first size; and

a second cell of a second size, the second size smaller than the first size, the second cell downstream from the first cell.

37. (New) The roadway crash cushion of claim 22 wherein the array of collapsible cells comprise:

a first plurality of cells, each of the first plurality of cells of a first size; and

a second plurality of cells, each of the second plurality of cells of a second size, the second size smaller than the first size, the second plurality of cells downstream from the first plurality of cells.